Aircraft Manuf	acturer	Hynes Heli	copter			,	
Aircraft Engir	ie Manufact	urer <u>Avc</u>	o Lycoming	(IVO-360- <i>E</i>	Ala)	<u></u>	
No. of Engines	; 1	_	Engine Ra	iting	180 HP		
Minimum Take-C)ff Weight	1.25 k-1b			-		
Maximum Take-()ff Weight	Peace-Time	1.67 k-	-1b			
Maximum Take-C)ff Weight	War-Time	1.67 k-1b				
Maximum Landir	ng Weig ht	1.67 k-1b					
Hover Ceiling	(In Ground	Effect)	6,700 ft				
Hover Ceiling	(Out of Gr	ound Effect	:) <u>†</u>	<u> </u>			
			ACN				
	Rigid Pa	vement Subs	grades	Flexible	Pavement	Subgra	Very
1	High Med	lium Low	Ultra Low	High	Medium	Low	-
Weight		<u>C</u>	<u>D</u>	_A	В	_ <u>C</u> _	<u>D</u>

1,670 lb/30 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-532. Hynes H-2/with wheel landing gear

Aircraft Manufactu	rer Hynes Helic	copter			
Aircraft Engine Ma	nufacturer Avco	Lycoming (I	VO-540-B1A)	
No. of Engines	1	Engine Rati	ng	305 HP	
Minimum Take-Off W	eight 2.05 k-1b				
Maximum Take-Off W	eight Peace-Time	2.9 k-1b	_		
Maximum Take-Off W	eight War-Time _	2.9 k-1b			
Maximum Landing We	ight <u>2.9 k-1b</u>				
Hover Ceiling (In	Ground Effect) _	4,080 ft	_		
Hover Ceiling (Out	of Ground Effect)				
		ACN			
Ri	gid Pavement Subgr	ades <u>F</u> Ultra	lexible Pa	vement Subgr	Very
High Weight A	Medium Low B C	Low H	igh Med A B	ium Low	Low D

Figure A-533. Hynes H-5/with skid landing gear

Aircraft Manufacturer	Hynes Helicopter		
Aircraft Engine Manufact	urer Avco Lycoming	(IVO-540-B1A)	
	T . D	205 117	
No. of Engines 1	Engine Ra	iting 305 HP	
Minimum Take-Off Weight	2 05 k-1h		
Minimum Take-off Weight	2.03 K 15		
	•		
Maximum Take-Off Weight	Peace-Time 2.9 k-1	.b	
_			
Maximum Take-Off Weight	War-Time 2.9 k-1b		
Maximum Landing Weight	2.9 k-1b		
Name Cadling (In Count	F(foot) / 000 ft		
Hover Ceiling (In Ground	4,000 It		
Hover Ceiling (Out of Gr	ound Effect)	†	
			
	ACN		
Rigid Pa	vement Subgrades	Flexible Pavement	Subgrades
	Ultra		Very
	ium Low Low C D	High Medium A B	Low Low C D
Weight A B			
	2,900 1b/†**		

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-534. Hynes H-5/with wheel landing gear

Aircraft Manufacturer	Messerschmitt-Bolkow-Blohm	
Aircraft Engine Manufact	urer <u>Allison (250-C20B)</u>	
No. of Engines 2	Engine Rating 420 SHP	
Minimum Take-Off Weight	3,26 k-1b	
Maximum Take-Off Weight	Peace-Time 5.29 k-lb	
Maximum Take~Off Weight	War-Time 5.51 k-lb	
Maximum Landing Weight	5.51 k-1b	
Hover Ceiling (In Ground	Effect) 8,400 ft (At 5,29 k-1b)	
Hover Ceiling (Out of Gr	ound Effect) 5,200 ft (At 5.29 k-1b)	
	ACN	

High

Α

Ultra

Low

D

Flexible Pavement Subgrades

Low

C

Medium

В

Very

Low D

Rigid Pavement Subgrades

Low

Medium

В

High

Α

Weight

Aircraft Manufacturer	Messerschmitt-Bolkow-Blohm	
Aircraft Engine Manufact	urer <u>Allison (250-C28C)</u>	
No. of Engines 2	Engine Rating	550 SRF
Minimum Take-Off Weight	3.43 k-1b	
Maximum Take-Off Weight	Peace-Time 5.73 k-lb	
Maximum Take-Off Weight	War-Time 5.73 k-1b	
Maximum Landing Weight	5.73 k-1b	
Hover Ceiling (In Ground	Effect) 11,500 ft	
Hover Ceiling (Out of Gre	ound Effect) 8,370 ft	
	ACN	

	Rigid Pavement Subgrades				Flexib	t Subg	Subgrades	
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	<u>A</u>	<u>B</u>	<u> </u>	<u>D</u>	A	<u>B</u>	<u>C</u>	D

Aircraft Manufacturer	Messerschmitt-Bolkow-Blo	hm/Kawasaki
Aircraft Engine Manufact	curer Avco Lycoming (LT	S 101-650B-1)
No. of Engines 2	Engine Ratin	g 592 SHP
Minimum Take-Off Weight	3.74 k-1b	
Maximum Take-Off Weight	Peace-Time 7.06 k-1b	-
Maximum Take-Off Weight	War-Time 7.06 k-lb	
Maximum Landing Weight	7.06 k-1b	
Hover Ceiling (In Ground	Effect) 5,000 ft	
Hover Ceiling (Out of Gr	ound Effect) 0 ft	
	ACN	
Rigid Pa	vement Subgrades Fl	exible Pavement Subgrades
	Ultra	Very
High Med Weight A E		gh Medium Low Low B C D

Aircraft Manufacturer	Messerschmitt-Bolkow-Blohm/	Kawasaki
Aircraft Engine Manufact	urer Avco Lycoming (LTS 1	01-650B-1)
No. of Engines 2	_ Engine Rating	592 SHP
Minimum Take-Off Weight	3.74 k-1b	
Maximum Take-Off Weight 1	Peace-Time 7.06 k-1b	
Maximum Take-Off Weight W	War-Time 7.06 k-1b	
Maximum Landing Weight	7.06 k-1b	
Hover Ceiling (In Ground	Effect) 5,000 ft	
Hover Ceiling (Out of Gro	ound Effect) 0 ft	-
	ACN	

H1gh

Α

Ultra

Low

D

Flexible Pavement Subgrades

Low

C

Medium

В

Very

Low

D

Rigid Pavement Subgrades

Low

Medium

В

High

Α

Weight

Aircraft Manufacturer McDonnell Douglas
Aircraft Engine Manufacturer General Electric (T700-GE-701)
No. of Engines 2 Engine Rating 1694 SHP
Minimum Take-Off Weight 11.8 k-1b
Maximum Take-Off Weight Peace-Time 14.4 k-1b
Maximum Take-Off Weight War-Time 21.0 k-1b
Maximum Landing Weight 21.0 k-1b
Hover Ceiling (In Ground Effect) 15,000 ft (At 14.4 k-1b)
Hover Ceiling (Out of Ground Effect) 11,500 ft (At 14.4 k-1b)

ACN

	. Rigid Pavement Subgrades				Flexib	t Subg	Subgrades	
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
12 14 21	4 4 6	4 4 6	4 4 6	4 4 6	3 3 6	4 4 6	4 4 7	4 4 7

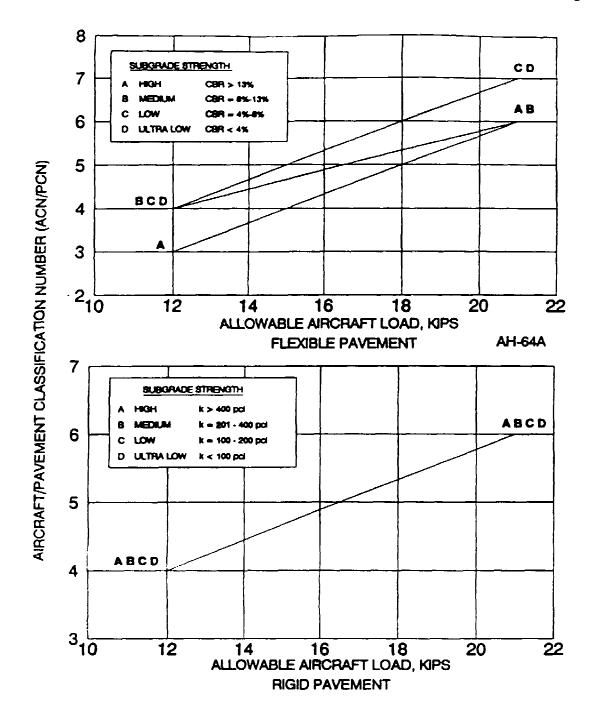


Figure A-540. McDonnell Douglas 77 (AH-64A), ACN/PCN Curves

Weight

Alreratt man	ulacturer			Douglas (1	ormerly ma	anufacture	d by H	ughes
		Alro	raft)					
Aircraft Eng	ine Manuf	actur er	<u> A11</u>	lson (T63-A	N-5A)			
No. of Engin	es <u>1</u>			Engine Ra	iting _	317 SH	P	
				-				
Minimum Take	-Off Weig	ht <u>1.69</u>	k-1b					
Maximum Take	-Off Weig	ht Peace	-Time	2.4 k-J	.b			
								
	055 11 1		ē					
Maximum Take	-Off Weig	ht War-T	ime _	2./ k-lb	-,			
Maximum Land	ing Weigh	<u>2.4</u>	<u>k-1b</u>					
Hover Ceiling	g (In Gro	und Effe	ct)	11.800 ft				
				At 2.4 k-1				
	(0 (C 1 1	PEE4\		_			
Hover Ceiling	g (Out or	Ground	LIIect)		<u>ft</u> 4 k-1b)			
				ACN				
	Rigid	Pavemen	t Subgr	ades	Flexible	Pavement	Subgra	ades
	High 1	ded to m	Low	Ultra Low	High	Medium	Low	Very Low
	TITEII I	icatini	₽∩M	LUW	ri T K ri	CICO T CITI	₽∩M	LUW

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

<u>C</u>

Figure A-541. McDonnell Douglas 500 (OH-6A), Cayuse

Aircraft Manufacturer	McDonnell Aircraft)	Douglas (formerly m	anufactur	ed by I	lughes
Aircraft Engine Manufa	octurer All	.1son_(250	-C20B)	<u>.</u>	- "	· · · · · · · · · · · · · · · · · · ·
No. of Engines 1		Engine	Rating _	420 SI	IP	
Minimum Take-Off Weigh	1.61 k-1b					
Maximum Take-Off Weigh	it Peace-Time	3.0 k	-1b			
Maximum Take-Off Weigh	t War-Time	3.0 k-1b	 -			
Maximum Landing Weight	3.0 k-1b					
Hover Ceiling (In Grou	nd Effect)	9,000 ft				
Hover Ceiling (Out of	Ground Effect	7,00	0 ft			
		AC	N			
Rigid	Pavement Subg	rades	Flexib1	e Pavement	Subgr	ades
		Ultra				Very
· ·	edium Low	Low D	High	Medium B	Low C	Low D
Weight A	<u>B</u> <u>C</u>		<u>A</u>			
	e relative st					.s

Figure A-542. McDonnell Douglas 500D

weather.

aircraft may damage AC pavement surfaces during hot

Aircraft Manufacturer McDonnell Douglas
Aircraft Engine Manufacturer Allison (250-C30)
No. of Engines 1 Engine Rating 650 SHP
Minimum Take-Off Weight 1.85 k-lb
Maximum Take-Off Weight Peace-Time 3.1 k-1b
Maximum Take-Off Weight War-Time 3.75 k-1b (With external load)
Maximum Landing Weight 3.1 k-lb
Hover Ceiling (In Ground Effect) 14,200 ft (At 3.1 k-1b)
Hover Ceiling (Out of Ground Effect) 12,000 ft (At 3.1 k-1b)

	Rigid Pavement Subgrades				Flexib	le Pavemen	t Subg	rades
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	A	B	<u> </u>	D	_A	B	<u> </u>	_D ,

Aircraft Manufacturer Robinson Helicopter Co.
Aircraft Engine Manufacturer Avco Lycoming (0-320-B2C)
No. of Engines 1 Engine Rating 160 SHP
Minimum Take-Off Weight 1.0 k-1b
Maximum Take-Off Weight Peace-Time 1.37 k-1b
Maximum Take-Off Weight War-Time 1.37 k-1b
Maximum Landing Weight 1.37 k-1b
Hover Ceiling (In Ground Effect) 7,000 ft
Hover Ceiling (Out of Ground Effect) 5,200 ft

	Rigid Pavement Subgrades			Flexible Pavement Subgra				
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	<u>A</u>	B	_ <u>C</u> _	D	_A	B	<u></u>	D

Aircraft Manufacturer	Rogerson Hiller Corp.	
Aircraft Engine Manufactu	rer <u>Allison (250-C18)</u>	······································
No. of Engines 1	Engine Rating	317 SHP
Minimum Take-Off Weight	1.9 k-1b	
Maximum Take-Off Weight P	eace-Time 2.75 k-lb	
Maximum Take-Off Weight W	ar-Time 2.75 k-1b	
Maximum Landing Weight	2.75 k-1b	
Hover Ceiling (In Ground	Effect) 13,400 ft	
Hover Ceiling (Out of Gro	und Effect) 8,400 ft	

	Rigid Pavement Subgrades			Flexib	Subgrades			
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	A	В	С	D	A	В	C	D

Aircraft Manufacturer	Rogerson H11	ler Corp.		
Aircraft Engine Manufact	curer <u>Avco</u>	Lycoming (VO-540	-C2A)	
No. of Engines 1	<u></u>	Engine Rating	340 НР	·
Minimum Take-Off Weight	2.02 k-1b	-		
Maximum Take-Off Weight	Peace-Time	3.1 k-1b		
Maximum Take-Off Weight	War-Time <u>3</u>	.l k-1b		
Maximum Landing Weight	3.1 k-1b			
Hover Ceiling (In Ground	Effect) 10	0,400 ft		
Hover Ceiling (Out of Gr	ound Effect)	6,800 ft		
		ACN		

High

<u>A</u>

Ultra

Low

D

Rigid Pavement Subgrades

Low

<u>C</u>

Medium

В

High

Α

Weight

Flexible Pavement Subgrades

Low

_C

Medium

В

Very

Low

D

Figure A-546. Rogerson Hiller UH-12E

Aircraft Manufacturer	Rogerson Hiller Corp.	
Aircraft Engine Manufact	urer Avco Lycoming (V0-540-C2A)	
No. of Engines 1	Engine Rating 340 HP	_
Minimum Take-Off Weight	2.09 k-1b	
Maximum Take-Off Weight 1	Peace-Time 3.1 k-1b	
Maximum Take-Off Weight W	War-Time 3.1 k-1b	
Maximum Landing Weight	3.1 k-1b	
Hover Ceiling (In Ground	Effect) 10,400 ft	
Hover Ceiling (Out of Gro	ound Effect) 6,800 ft	

	Rigid Pavement Subgrades			Flexib	Subgrades			
				Ultra	\ <u></u>			Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	A	В	С	D	A	В	С	D

Aircraft Man	nufacturer	Rogerson H	iller Corp	•			
Aircraft Eng	gine Manufact	urer All	ison (250-	C20B)		-	
No. of Engir	nes <u>I</u>		Engine Ra	ating _	420 H	P	
Minimum Take	e-Off Weight	1.92 k-1b					
Maximum Take	e-Off Weight	Peace-Time	3.1 k-	<u>lb</u>			
Maximum Take	-Off Weight	War-Time	3.1 k-1b				
Maximum Land	ing Weight	3.1 k-1b					
Hover Ceilin	g (In Ground	Effect) _	12,000 ft				
Hover Ceilin	g (Out of Gr	ound Effect)	7,000	ft			
			ACN				
	Rigid Pa	vement Subgr	ades	Flexibl	e Pavement	Subgr	ades
	High Med:	fum Ior	Ultra	High	Maddam	1	Very
Weight	A B	C C	Low D	A	Medium B	Low C	Low D

Figure A-548. Rogerson Hiller UH-12ET

Aircraft Manufacturer	Rogerson Hiller C	orp.	 	·
Aircraft Engine Manufac	turer <u>Allison (</u> 2	50-C20B)		
No. of Engines 1	Engin	e Rating	420 SHP	
Minimum Take-Off Weight	1.92 k-1b			
Maximum Take-Off Weight	Peace-Time 3.1	<u>k-1b</u>		
Maximum Take-Off Weight	War-Time 3.1 k-	16		
Maximum Landing Weight	3.1 k-1b			
Hover Ceiling (In Groun	d Effect) 12,000	ft		
Hover Ceiling (Out of G	round Effect)	000 ft		
		ACK		
Rigid P	avement Subgrades	Flexible	<u>Pavement</u>	Subgrades
	Ultra dium Low Low B C D			Very Low Low C D

Aircraft Manufacturer			(formerly	manufacture	ed by	Hughes
	Aircraft)					
Aircraft Engine Manufact	urer Ly	coming (H	(0-360-B1A)	1		
No. of Engines 1		Engine	Rating	180 HP		
	-	J	· -			
Minimum Take-Off Weight	1.27 k-1b					
Maximum Take-Off Weight	Passa-Timo	1 67	k_1h			
Haximum Take-Off Weight	reace-rime	1.07	K-10	*		
Manda on Malia OSS Undala	17 T d	1 05 1, 1	L			
Maximum Take-Off Weight	war-lime	1.65 K-1	. D			
v	1 (7) 11					
Maximum Landing Weight	1.67 K-16					
Hover Ceiling (In Ground	Effect)	$\frac{5,500 \text{ ft}}{(\text{At } 1.67)}$: k=167			
		(MC 1.07	K 10)			
Hover Cailing (Out of Gr	ound Effect	$\frac{3,75}{700}$	67 k-15			
		(אנ ו	U/ K-10)			
		AC	² N			
Rioid Pa	vement Subs	rađes	Flavihi	e Pavement	Suber	rađes
	vement bub	Ultra	LACALDI	- I uvement	2005	Very
High Med	tum Tow	Low	High	Medium	Low	Low

В

C

D

D

Weight

В

С

Aircraft Manufacturer	Schweizer A Aircraft)	lircraft	(formerly	manufactured	by Hughes
Aircraft Engine Manufact	urer <u>Lyc</u> c	oming (HI	0-360-D1A)		
No. of Engines 1	_	Engine I	Rating _	210 нр	
Minimum Take-Off Weight	1.4 k-1b				
Maximum Take-Off Weight	Peace-Time	2.05	c-1b		
Maximum Take-Off Weight	War-Time _	2.05 k-11)		
Maximum Landing Weight	2.05 k-1b				
Hover Ceiling (In Ground	Effect) _	5.800 ft			
Hover Ceiling (Out of Gr	ound Effect)	2.200	ft		
		ACN			
Rigid Pa	vement Subgr		Flexible	Pavement S	
High Med Weight A B	ium Low	Ultra Low D	High A		Very ow Low C D

Aircraft Manufacturer Sikorsky Aircraft
Aircraft Engine Manufacturer Wright (R-1820-84B/D)
No. of Engines 1 Engine Rating 1525 HP
Minimum Take-Off Weight 8.6 k-lb
Maximum Take-Off Weight Peace-Time 13.0 k-lb
Maximum Take-Off Weight War-Time 14.0 k-lb
Maximum Landing Weight 13.0 k-1b
Hover Ceiling (In Ground Effect) 4,900 ft (At 13.0 k-1b)
Hover Ceiling (Out of Ground Effect) $\frac{2,400 \text{ ft}}{(\text{At } 13.0 \text{ k-lb})}$

ACN

	Rigid Pavement Subgrades				Flexib	Subgrades		
			_	Ultra			_	Very
Weight	High A	Medium B	Low C	Low D	High A	Medium B	Low C	Low D
9	2	2	2	2	2	2	2	2
13	3	3	3	3	3	3	3	4
14	3	3	3	3	3	3	3	4

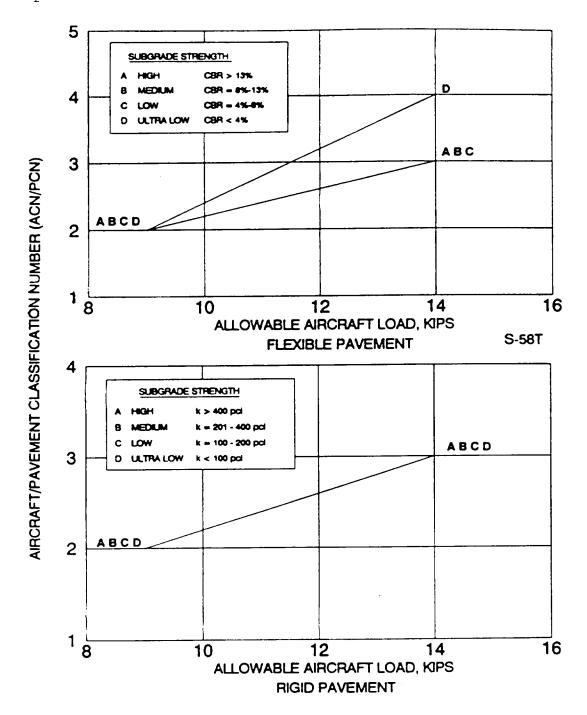


Figure A-553. Sikorsky S-58T, ACN/PCN Curves

Aircraft	Manufac	cturer _	Sikorsky	Aircra	irt		
Aircraft	Engine	Manufactu	ırer <u>G</u>	eneral	Electric	(CT58-140-1)	

No. of Engines 2 Engine Rating 1500 SHP

Minimum Take-Off Weight 14.1 k-1b

Maximum Take-Off Weight Peace-Time 20.5 k-1b

Maximum Take-Off Weight War-Time 22.0 k-lb (With external load)

Maximum Landing Weight 20.5 k-lb

Hover Ceiling (In Ground Effect) $\frac{8,700 \text{ ft}}{(\text{At } 20.5 \text{ k-lb})}$

Hover Ceiling (Out of Ground Effect) $\frac{3,800 \text{ ft}}{(\text{At } 20.5 \text{ k-lb})}$

ACN

	Rig	id Pavemer	nt Subg	rades	Flexib	le Pavement	Subgr	rades
	High	Medium	Low	Ultra Low	H1gh	Medium	Low	Very Low
Weight	<u>A</u>	В	<u> </u>	<u>D</u>	<u>A</u>	B	<u> </u>	<u>D</u>
14	3	3	3	3	2	2	2	3
21	4	4 5	4 5	4 5	2 2	3 3	4 4	5 5

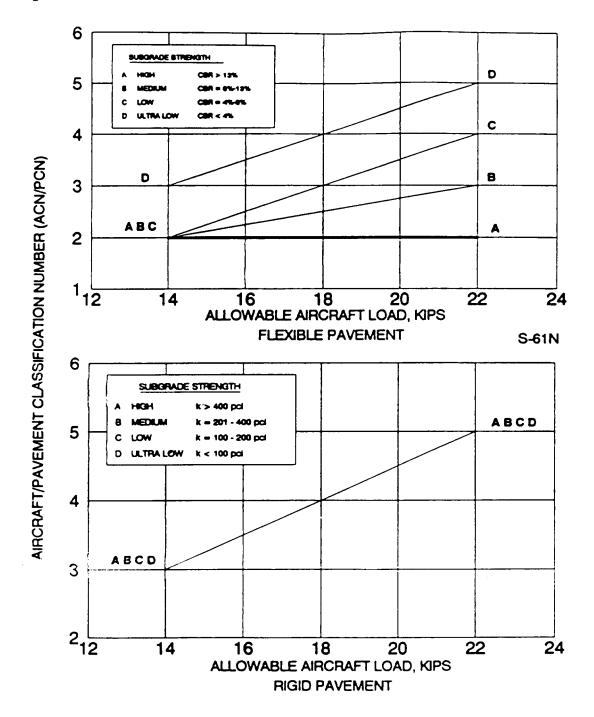


Figure A-555. Sikorsky S-61N, ACN/PCN Curves

Aircraft Manufacturer	Sikorsky Aircraft	
Aircraft Engine Manufact	urer General Electric (CT58-1	10-1)
No. of Engines 1	Engine Rating	1250 SHP
Minimum Take-Off Weight	6.05 k-1b	•
Maximum Take-Off Weight	Peace-Time 7.9 k-1b	
Maximum Take-Off Weight	War-Time 8.0 k-lb (With sling load)	-
Maximum Landing Weight	7.9 k-1b	
Hover Ceiling (In Ground	Effect) 14,100 ft (At 7.9 k-1b)	
Hover Ceiling (Out of Gr	ound Effect) 4,600 ft (At 7.9 k-1b)	
	ACN	

8,000 lb/70 psi**

Ultra

Low

D

H1gh

A

Rigid Pavement Subgrades

Low

<u>c</u>

Medium

В

High

_A__

Weight

Flexible Pavement Subgrades

Low

<u>C</u>

Medium

В

Very

Low

D

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.